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EXAMINER

ALEXANDER, MICHAEL P

ART UNIT	PAPER NUMBER
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1742

DATE MAILED: 02/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/670,284

Applicant(s)

OKU ET AL.

Examiner

Michael P. Alexander

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 November 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-6,8 and 17-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-6,8 and 17-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim(s) 2-6, 8 and 17-20 is/are pending.

Specification

The amendment filed 28 November 2005 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: the change of B content in Comparative Steel 31 from 0.0152% to 0.0252% in Table 2 is not supported by the original disclosure.

Applicant is required to cancel the new matter in the reply to this Office Action.

The Examiner wishes to direct applicant to MPEP 2163.07 II. An amendment to correct an obvious error does not constitute new matter where one skilled in the art would not only recognize the existence of error in the specification, but also the appropriate correction. In re Odd, 443 F.2d 1200, 170 USPQ 268 (CCPA 1971). Although one skilled in the art would recognize the error in Table 2, one skilled in the art would not recognize the appropriate correction.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 2-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirata et al. (US 2001/0003293 A1).

Regarding claims 2-6, Hirata teaches (abstract, 0066) a ferritic steel inherently concurrently improved in formability, high-temperature oxidation resistance, high-temperature strength, and low-temperature toughness comprising a composition in mass percent amounts of C, Si, Mn, Ni, Cr, N, Nb, Ti, Cu, B, V, Ca, Mg, Mo, Al and rare earth elements (balance Fe and unavoidable impurities) which overlap with claimed ranges of each of the respective elements, which is prima facie evidence of obviousness. See MPEP 2144.05 I. It would have been obvious to one of ordinary skill in the art to select the desired amounts of C, Si, Mn, Ni, Cr, N, Nb, Ti, Cu, B, V, Ca, Mg, Mo, Al and rare earth elements from the amounts disclosed by Hirata because Hirata teaches the same utility throughout the disclosed ranges.

With respect to the claimed compositional formulas in claims 2-6, it is well settled that there is no invention in the discovery of a general formula if it covers a composition described in the prior art, *In re Cooper and Foley* 1943 C.D. 357, 553 O.G. 177; 57 USPQ 117, *Taklatwalla v. Marburg*, 620 O.G. 685, 1949 C.D. 77, and *In re Pilling*, 403

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O.G. 513, 44 F(2) 878, 1931 C.D. 75. In the absence of evidence to the contrary, the selection of the proportions of elements would appear to require no more than routine investigation by those ordinary skilled in the art. In re Austin, et al., 149 USPQ 685, 688. It would have been obvious to one of ordinary skill in the art to select the claimed proportions of elements from the ranges disclosed by Hirata because Hirata teaches the same utility throughout the disclosed ranges.

With respect to the limitation that the steel sheet have a metallic structure obtained by the recited steps in claims 2-6, the Examiner notes that this is a product-by-process limitation and that the patentability of a product does not depend on its method of production. The structure implied by the process steps should be considered when assessing the patentability of product-by-process claims over the prior art, See MPEP 2113. The Applicant has demonstrated that the structure implied by the recited process steps is that the structure would have an improved "r value". The Examiner asserts that the steel of Hirata, although produced by a different process, meets the structure implied by the recited process steps because Hirata teaches (0045) that the structure would have an improved "r value".

Claims 2-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyakusu et al. (US 5,304,259) or Yazawa et al. (US 2004/0055674)

Regarding claims 2-6 and similar to the above rejection, Miyakusu teaches (abstract) and Yazawa teaches (0020-0050) ferritic steel sheets inherently concurrently improved in formability, high-temperature oxidation resistance, high-temperature strength, and low-temperature toughenss having compositional ranges which overlap

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with the claimed ranges, which would make obvious the claimed compositional ranges and compositional formulas as explained above. Additionally, Miyakusu teaches (Table 2) and Yazawa teaches (0063) alternative processing methods which meet the structure implied by the recited process steps in that the structures would have improved "r values".

Claims 2-6, 8 and 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kohno et al. (US 5,653,825).

Regarding claims 2-6 and similar to the above rejections, Kohno teaches (col. 3 line 57 – col. 7 line 16) ferritic steel sheets inherently concurrently improved in formability, high-temperature oxidation resistance, high-temperature strength, and low-temperature toughenss having compositional ranges which overlap with the claimed ranges, which would make obvious the claimed compositional ranges and compositional formulas as explained above. Additionally, Kohno teaches (Table 2) an alternative processing method which meets the structure implied by the recited process steps in that the structure would have improved "r values".

Regarding claims 8 and 17-20, Kohno teaches (col. 1 lines 15-21) using the steel sheet as an automotive exhaust component.

Claims 2-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yokota et al. (US 5,505,797) or Maruhashi et al. (US 4,652,428) in view of Yazawa et al. (US 2004/0055674 A1).

Regarding claims 2-6 and similar to the above rejections, Yokota teaches (col. 3 line 43 – col. 4 line 2) and Maruhashi teaches (col. 2 line 10 – col. 3 line 39) ferritic steel

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sheets inherently concurrently improved in formability, high-temperature oxidation resistance, high-temperature strength, and low-temperature toughness having compositional ranges which overlap with the claimed ranges (except Boron), which would make obvious the claimed compositional ranges (except Boron) and compositional formulas as explained above. Additionally, Yokota teaches (abstract) and Maruhashi teaches (Figure 1) alternative processing methods which meet the structure implied by the recited process steps in that the structures would have improved "r values".

With respect to the claimed Boron content of 0.005-0.02% in claims 2-6, Yazawa teaches (0038) adding the claimed amount of Boron to a substantially similar ferritic steel sheet in order to increase grain boundary strength and enhance brittle resistance to secondary processing. It would have been obvious to one of ordinary skill in the art to modify the steel sheets of Yokota or Maruhashi by adding the claimed amount of Boron in order to increase grain boundary strength and enhance brittle resistance to secondary processing as taught by Yazawa.

Response to Arguments

Applicant's arguments with respect to claims 2-6, 8 and 17-20 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

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§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael P. Alexander whose telephone number is 571-272-8558. The examiner can normally be reached on M-F 8:30-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy V. King can be reached on 571-272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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